

1998 RENEWABLE ENERGY INDUSTRY SURVEY

DIRECTIONS: This survey is appropriate to companies and organizations which generate some revenue from products or services related to renewable energy (RE), i.e. solar energy, wind energy, geothermal, fuel cells with PV, and biomass-to-fuels, wood fuel equipment, etc. Activities include research, consulting, engineering, installation, construction, retail, wholesale, distribution, manufacturing, power production and others. Please respond to each question as it pertains to the RE portion of your business only. If your firm is part of a larger corporation, please answer questions below as they pertain to your operations in Colorado.

SECTION I – COMPANY PROFILE

1. Did your organization derive revenue from RE in 1997?
 Yes ☐
 No ☐ **STOP! If no revenue is derived from RE, check “No” and return survey.**
2. How many years has your organization been in operation in Colorado? _____
3. Please check the one activity in column A that provides the most revenue for your organization. Please check all other activities in column B that are a part of your normal business.

Colorado RE Activities	A. Primary (check one)	B. Additional (check all that apply)
Wind energy	<input type="checkbox"/>	<input type="checkbox"/>
Passive solar	<input type="checkbox"/>	<input type="checkbox"/>
Photovoltaics (PV)	<input type="checkbox"/>	<input type="checkbox"/>
Solar thermal	<input type="checkbox"/>	<input type="checkbox"/>
Solar thermal electric	<input type="checkbox"/>	<input type="checkbox"/>
Geothermal	<input type="checkbox"/>	<input type="checkbox"/>
Biomass-to-fuels	<input type="checkbox"/>	<input type="checkbox"/>
Fuel cell with PV	<input type="checkbox"/>	<input type="checkbox"/>
Landfill gas	<input type="checkbox"/>	<input type="checkbox"/>
Wood/pellet fuel/equipment	<input type="checkbox"/>	<input type="checkbox"/>
Other _____	<input type="checkbox"/>	<input type="checkbox"/>

4. Please check the one activity in column A that best describes your company's RE business activity. Check all other activities in column B that describe your RE business activities.

Colorado RE Business Activity	A. Primary (check one)	B. Additional (check all that apply)
Manufacturing/assembly	<input type="checkbox"/>	<input type="checkbox"/>
Wholesale/distribution	<input type="checkbox"/>	<input type="checkbox"/>
Retail sales and services	<input type="checkbox"/>	<input type="checkbox"/>
R&D	<input type="checkbox"/>	<input type="checkbox"/>
Power production	<input type="checkbox"/>	<input type="checkbox"/>
Construction/installation	<input type="checkbox"/>	<input type="checkbox"/>
Trade association/lobbying	<input type="checkbox"/>	<input type="checkbox"/>
Project planning/implementation	<input type="checkbox"/>	<input type="checkbox"/>
Design	<input type="checkbox"/>	<input type="checkbox"/>
Engineering	<input type="checkbox"/>	<input type="checkbox"/>
Training/certification	<input type="checkbox"/>	<input type="checkbox"/>
Policy research and analysis	<input type="checkbox"/>	<input type="checkbox"/>
Education/information	<input type="checkbox"/>	<input type="checkbox"/>
Other _____	<input type="checkbox"/>	<input type="checkbox"/>

SECTION II – ECONOMIC IMPACT

Your company information will remain confidential. It will be aggregated with data from other organizations to estimate the current and future impact of the RE industry on the Colorado economy. In making future estimates, please assume no major changes in current energy and utility policies. Provide data for Colorado operations only.

1. A. What percentage of your organization's 1997 sales were in state, domestic and international markets?
B. Please estimate the percent distribution for these markets in the year 2000 (total must equal 100%).

Market	Percent Sold	
	1997	2000
Percent sold in Colorado	_____ %	_____ %
Percent sold in U.S. (other states)	_____ %	_____ %
Percent sold internationally	_____ %	_____ %
TOTAL RE Sales	100.0%	100.0%

2. A. Please indicate the customer groups where your company derived revenue in 1997.
B. Do you expect sales to increase, decrease, or stay the same for each market over the next three years?

Customer Groups	1997 Sales		Expectations for the Next Three Years		
	No Sales	Sales	Increase	Decrease	Stay the same
Residential	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Commercial	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Industry	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Government	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3. A. What are your estimated number of total employees in 1997, 1998 and 2000?
B. How many of these are estimated to be engaged in or support your RE activities during these years?

	<u>1997</u>	<u>1998</u>	<u>2000</u>
A. Total number of Colorado employees	_____	_____	_____
B. Number of Colorado RE employees	_____	_____	_____

4. A. Check the box in the column that best represents your organization's 1997 total gross revenue.
B. Check the box in the column that best represents your organization's 1997 gross revenue from RE.

	<u><\$100K</u>	<u>\$100K-\$249K</u>	<u>\$250K-\$499K</u>	<u>\$500K-\$999K</u>	<u>\$1M-\$5M</u>	<u>\$6M-\$10M</u>	<u>> \$10M</u>
A. Total gross revenue	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
B. Revenue from RE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

5. From which supply area does your company acquire, or purchase resources to produce, your RE products and services? Please check only one primary geographic area for each commodity.

RE Supply Areas	Not Applicable	Local (County)	Colorado	Elsewhere in the U.S.	International
Raw materials & supplies	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Product components	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Finished products	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Manufacturing equipment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Contract services	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

SECTION III – ISSUES AND NEEDS

Other states have implemented specific policies and programs to support growth of the RE industry. Your input in this section will be used to help identify and prioritize potential policies for Colorado.

1. Please select up to five of the following factors, that have the most potential to increase the profitability of your company's RE products and services. Then indicate the relative importance of those five factors by ranking them from 1 to 5, where 1 is most important and 5 is least important.

Factors Impacting Profitability	Top 5 Ranking (1 is most important)
Income tax credit for RE manufacturing facility construction	_____
Percent of property tax exempt for solar and wind power producing or mfg. facilities	_____
Corporate state excise tax exemption on solar and wind power systems	_____
Tax deductions for income received from sale or royalty stream of RE patent	_____
Tax incentives for RE production and facilities	_____
PV net metering	_____
Green pricing programs	_____
Disclosure and labeling of utility power sources	_____
Uniform, simplified utility grid-tied interconnection	_____
Restructuring energy sources	_____
RE industrial park/incubator	_____
Increased state government use of RE	_____
Export assistance specific to RE products/services	_____
Public and consumer education	_____
Training RE industry specific workforce	_____
Low interest loans for manufacturing or acquisition of energy equipment	_____
Low cost financing for residential and small commercial systems	_____
Grants to develop and commercialize RE technologies	_____
Industrial development bonds (low interest loans for manufacturing facility)	_____

2. A. Please indicate the importance of your reasons for locating your RE business in Colorado.
B. For each reason, check one of the right hand columns to indicate Colorado's strength or weaknesses.

Reasons for Choosing Colorado	Not Important	Somewhat Important	Important	Critical	Colorado Strength	Colorado Weakness
Healthy state economy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Natural resources and climate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
General quality of life	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Positive environmental attitudes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
In state customers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
In state suppliers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
University research in RE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Proximity to federal laboratories	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
State government leadership	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
State and local tax structure	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Available technical workforce	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Labor costs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cost of leasing or building space	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3. A. Please indicate the importance of each of the following public and private support services to the development of your RE business over the next five years.
- B. Please also check the right hand columns to indicate those services which are not currently available or are not affordable.

Public and Private Services	Not Important	Somewhat Important	Important	Critical	Not Available	Not Affordable
Debt financing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Venture/investor financing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Management assistance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Legal assistance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Marketing assistance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Export assistance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Technical workforce training	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Technical expertise	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Shared administrative services	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Design and engineering services	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other : _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

4. A. Indicate the importance of each of the following factors to the maintenance of your technical workforce.
- B. Check the right hand columns to indicate those that are not currently available or are not affordable to your company.

Workforce Factors	Not Important	Somewhat Important	Important	Critical	Not Available	Not Affordable
High-school educated workers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
College-educated workers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Employees with energy or environmental degree	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
RE training programs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Specialized RE training with certification	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Management training	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Financial management training	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other : _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

5. A. Which best describes your Colorado facility needs over the next five years? (check one)

No change ☐ Renovate current facilities ☐ Move to larger space ☐

Purchase additional facilities ☐ Move to same size space ☐

Rent or lease additional facilities ☐ Move to smaller space ☐

If you are not planning to move from your current location, please skip to question 6.

- B. What is the most probable relocation site? (check one)

Same county ☐ Another state: _____ ☐

Elsewhere in Colorado: _____ ☐ Another country: _____ ☐

- C. What are the reasons for the possible move? (check all that apply)

Need lower cost facilities ☐ Closer to suppliers ☐ Personal factors ☐

Change space requirements ☐ Closer to customers ☐ Other: _____ ☐

An “eco-industrial park/sustainable technology business center” is a site where manufacturing and service businesses locate for a synergistic relationship through which they exchange material and energy waste streams. The formerly discarded “waste” by-products of one firm become the valued raw materials of another.” Such a site may include a variety of services and features.

6. *If an eco-industrial park/sustainable technology business center were developed in Colorado, specifically for sustainable and RE companies, would your company be interested in participating as a tenant?*

Yes ☐

No ☐ **STOP! If you answered “No” please return the survey.**

7. *Which of the following benefits and services would be most important to your potential participation as a tenant? Rank the five most important where 1 is most important and 5 is least important.*

Potential Benefits	Top 5 Ranking (1 is most important)
International trade zone	_____
Enterprise Zone tax reductions	_____
Low interest Industrial Development Bond financing	_____
Research facilities and technical expertise	_____
Proximity to an international airport	_____
Proximity to rail	_____
Proximity to feedstock (bio-mass)	_____
Low facility costs	_____
On-site export assistance	_____
On-site management and marketing advice and assistance	_____
Shared office services, copying, receptionist, fax	_____
Access to shared PC computer systems and software	_____
Co-location with businesses using my product, service, or waste	_____
Co-location with businesses providing products, services, and resources used by my company	_____

8. *Where would you prefer this “eco-industrial park/sustainable energy business center” be located? (check one)*

Denver Metro Area ☐

Boulder ☐

Ft. Collins ☐

Grand Junction ☐

Colorado Springs ☐

Other: _____ ☐

9. *If you were to move to an eco-industrial park/sustainable energy business center,*
 A. *Indicate your company’s expected square footage requirements for various space types.*
 B. *Indicate the square foot price you would expect to pay for each type of space in an “eco-industrial park/sustainable energy business center.”*

	<u>Office</u>	<u>Retail</u>	<u>Manufacturing</u>	<u>Research Lab</u>	<u>Warehouse</u>
A. Square footage per space type	_____ s.f.	_____ s.f.	_____ s.f.	_____ s.f.	_____ s.f.
B. Expected price per square foot	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____

THANK YOU FOR YOUR PARTICIPATION IN THIS STUDY
 Please return the survey in the enclosed, postage-paid, survey by **October 9, 1998**
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 or Fax to 303.492.3620